

REMARKS

In this paper, claim 1 is currently amended. After entry of the above amendment, claims 1-37 are pending.

Claims 1-5 and 13-22 were rejected under 35 U.S.C. §103(a) as being unpatentable over Nakabayashi, et al (JP 4-150729) in view of Mitchell (US 6,355,990). This basis for rejection is respectfully traversed.

As submitted previously, Nakabayashi, et al is nonanalogous art and should not form a part of the obviousness analysis. The present claims are directed to bicycle components. The Nakabayashi, et al reference is directed to heaters, not bicycle components. Furthermore, the issue addressed by Nakabayashi, et al's separate power supplies (12) and (13) is to provide such power supplies in series to provide a single cumulative voltage to a single voltage system (16). By contrast, the issue addressed by the claimed invention is to provide to power supplies for separate electrical components of a bicycle. Thus, even according to the structure/function test of analogous art, Nakabayashi, et al is nonanalogous art.

As for the availability of the preamble to limit the claims, clear reliance on the preamble during prosecution to distinguish the claimed invention from the prior art transforms the preamble into a claim limitation because such reliance indicates use of the preamble to define, in part, the claimed invention. *See, e.g., Catalina Marketing International Inc. v. Coolsavings.com Inc.*, 289 F.3d 801, 62 USPQ2d 1781, 1785 (Fed.Cir. 2002). In any event, claim 1 has been amended to include the reference to an electrical component of the bicycle in the body of the claim. Dependence on a particular disputed preamble phrase for antecedent basis limits claim scope because it indicates a reliance on both the preamble and claim body to define the claimed invention. *Id.*, citing *Bell Communications Research, Inc. v. Vitalink Communications Corp.*, 55 F.3d 615, 620, 34 USPQ2d 1816, 1820 (Fed.Cir. 1995).

As noted in the office action, Nakabayashi, et al is not directed to supplying power to two different electrical components. The office action relies on Mitchell for teaching separate power

supplies for different circuit elements. However, Nakabayashi, et al relies on the combined voltage of separate power supplies (12) and (13) to provide the necessary operating voltage for a single heater (16). It does not make sense to use power supplies (12) and (13) separately to power heater (16), because then the needed high voltage for powering heater (16) would not be produced. It is not obvious to modify a prior art device in a manner that destroys the operation of that device. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125, 1127 (Fed. Cir. 1984).

Nor is there any suggestion to power heater (16) with only one power supply (12) and use the other power supply (13) to power some other element, because then again the needed high voltage for powering heater (16) would not be produced. Furthermore, powering multiple components with the batteries (12) and (13) separately simply provides additional drain on each battery, which one would expect to be very undesirable.

As for claims 2, 3, 5 and 13-22, Nakabayashi, et al relies on the combined voltage of separate power supplies (12) and (13) to provide the necessary operating voltage for a single heater (16). It is the very purpose of power supplies (12) and (13) to combine their power, so Nakabayahi, et al actually teaches away from the proposed modification. Preventing power supplied (12) and (13) from communicating power between them would prevent the proper cumulative voltage from being produced to power heater (16). As noted above, it is not obvious to modify a prior art device in a manner that destroys the operation of that device. Also, while there are diodes (15) between switch (14) and power supplies (12) and (13), all that can be said is that diodes (15) prevent reverse current flow from power supplies (12) and (13) back to switch (14). Since power supplies (12) and (13) are connected in series via switch (14) (i.e., the negative terminal of power supply (12) must be connected to the positive terminal of power supply (13), or vice versa, to produce the cumulative voltage), it cannot be said that diodes (15) prevent reverse current flow between power supplies (12) and (13).

As for claim 18, that claim recites a voltage stabilizing circuit. While a diode stabilizes current as properly noted in the office action, it does not stabilize voltage.

Claims 6-9 were rejected under 35 U.S.C. §103(a) as being unpatentable over Nakabayashi, et al in view of Mitchell and Flory IV (US 6,388,392). This basis for rejection is respectfully traversed for the same reasons noted above.

Flory IV also is nonanalogous art. Flory IV is directed to heavy equipment used in harsh environments, whereas the present invention is directed to the bicycle field. The problem addressed by Flory IV is providing power to a common load upon failure of a main power supply, whereas the present invention is directed to the problem of powering separate loads on a bicycle. Flory IV discloses parallel-connected energy storage banks (ESB's) that provide power to a load such as a lighting apparatus (30) on a crane (10). Diodes (62) are not provided to prevent current flow from ESB (48) of (70b) to ESB (48) of (70a), but to prevent current from being drained from any of the ESB's to other loads connected to the system. Thus, the fields and structure/function of the devices are vastly different.

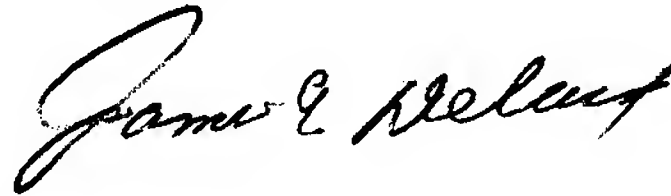
Furthermore, the reason advanced by the office action to allow current to flow from a first storage element to a second storage element through a reverse current inhibiting circuit is "so that when the first storage element is fully charged it can pass on the excess charge onto the second storage element so no charge will be wasted in the first storage element, not being needed or used." However, as noted above, diodes (62) are provided to prevent current from being drained from any of the ESB's to other loads connected to the system. The only suggestion to charge a power storage element from another power storage element through a reverse current inhibiting unit comes from the applicant's disclosure, and it is well settled that an applicant's disclosure is not a proper source for a motivation to combine teachings of references.

Claims 10-12 and 23-27 were rejected under 35 U.S.C. §103(a) as being unpatentable over Nakabayashi, et al in view of Mitchell, Flory IV and Turner (US 2002/0014366). This basis for rejection is respectfully traversed for the same reasons noted above. Furthermore, the office action states that the type of load wasn't explicitly taught by Nakabayashi, et al, and that the loads disclosed in Turner are known. Therefore, it would be obvious to combine the teachings of the references. Nakabayashi, et al does disclose the type of load to which its teachings apply (a heater), and a disclosure of that application does not motivate one of ordinary skill in the art to apply any of

the disclosed structure to bicycle electrical components. However, even if a reference is silent about a particular application, that does not make any and all applications of the disclosed structure obvious.

Accordingly, it is believed that the rejections under 35 U.S.C. §103 have been overcome by the foregoing amendment and remarks, and it is submitted that the claims are in condition for allowance. Reconsideration of this application as amended is respectfully requested. Allowance of all claims is earnestly solicited.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "James A. Deland".

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